

COMMUNITY COLLABORATION AND MAT

*HOW OUR COMMUNITY ADDRESSED
THE SUBSTANCE ABUSE CRISIS*

Deborah A. McMahan, MD

Prescription Drug Symposium

AGENDA

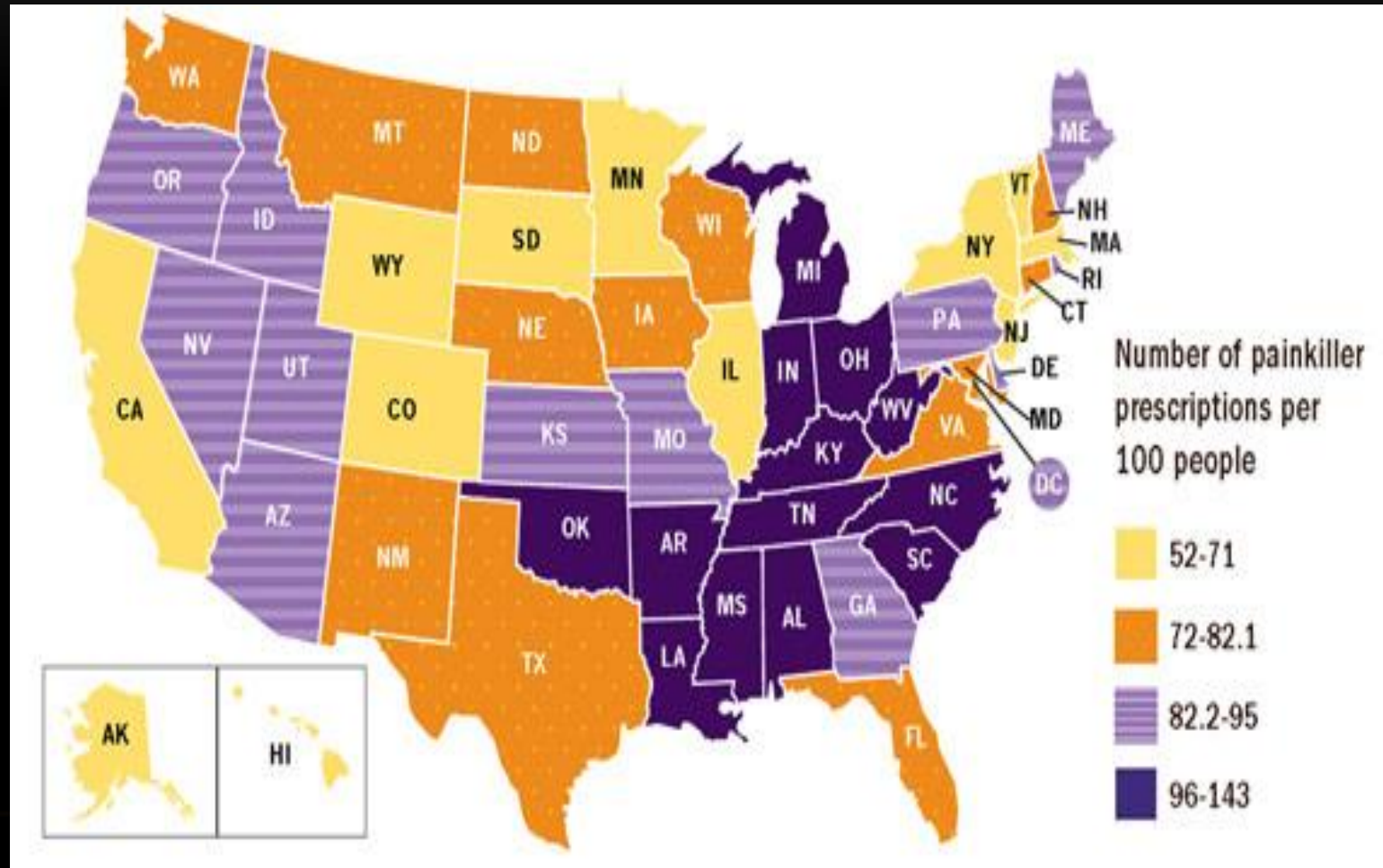
- Scope of the Problem
 - What's the Big Deal?
 - What Does the Science Say?
 - Evidence Based Community Wide Solutions
 - Clean Slate: A Model for MAT Delivery
-

SCOPE OF THE PROBLEM

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- In 2010, about 12 million Americans (age 12 or older) reported nonmedical use of prescription painkillers in the past year.
- Enough prescription painkillers were prescribed in 2010 to medicate every American adult around-the-clock for a month.
- Nearly 15,000 people die every year of overdoses involving prescription painkillers.

State Painkiller Prescriptions per Person



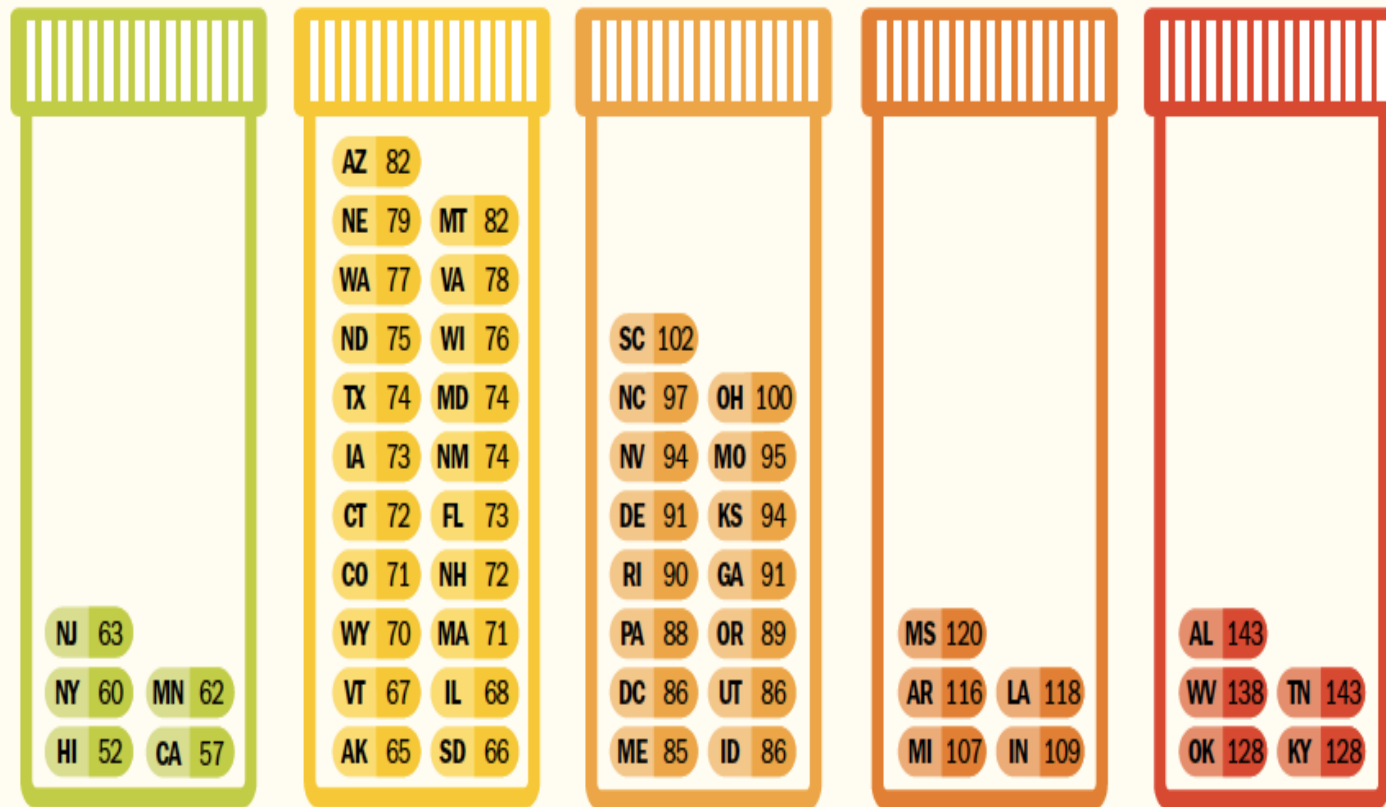
Health care providers in different states prescribe at different levels.

Number of painkiller prescriptions per 100 people

Lowest

Average

Highest



State Abbreviation—**GA** 91—Number of painkiller prescriptions per 100 people

SOURCE: IMS, National Prescription Audit (NPA™), 2012.

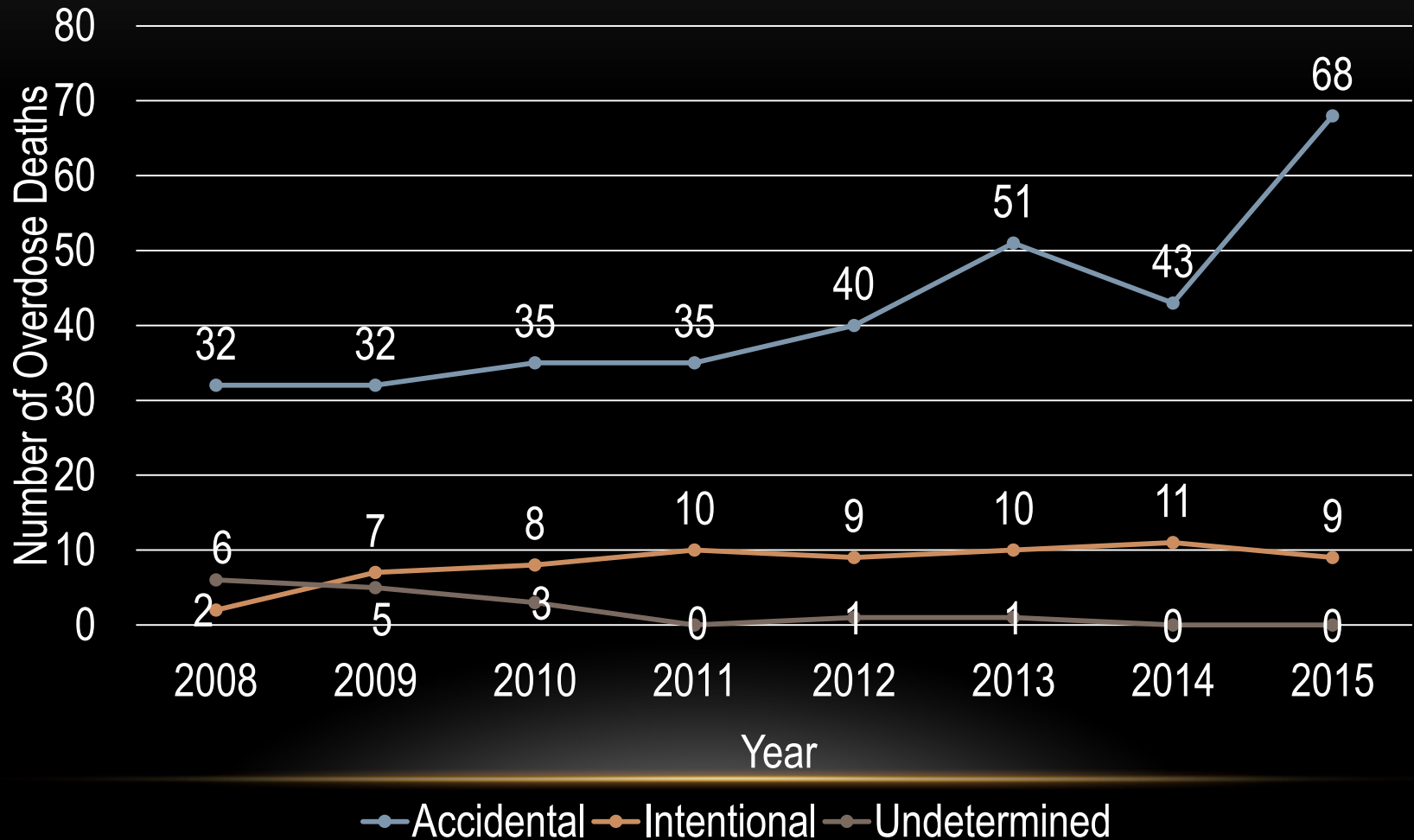
WHAT'S THE BIG DEAL?

2008-2015 SUMMARY

- 418 total overdose deaths
 - 336 accidental
 - 66 intentional
 - 16 undetermined
- 412 total overdose deaths with toxicology screens
 - 6 total cases removed from drug classes analysis due to lack of toxicology screens
 - 2008 (1), 2011 (3), 2013 (1), 2015 (1)
 - Total count with toxicology screens
 - 332 accidental
 - 64 intentional
 - 16 undetermined
- 2008-2013
 - 287 total overdose deaths
 - 225 accidental
 - 46 intentional
 - 16 undetermined
 - 282 total with toxicology screens
- 2014-2015
 - 131 total overdose deaths
 - 111 accidental
 - 20 intentional
 - 130 total with toxicology screens

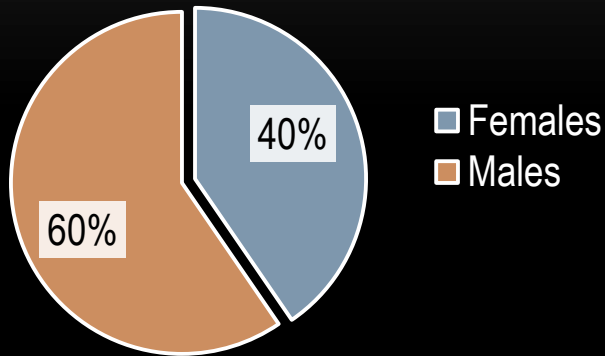
OVERALL OVERDOSE DEATHS

Total Overdose Deaths

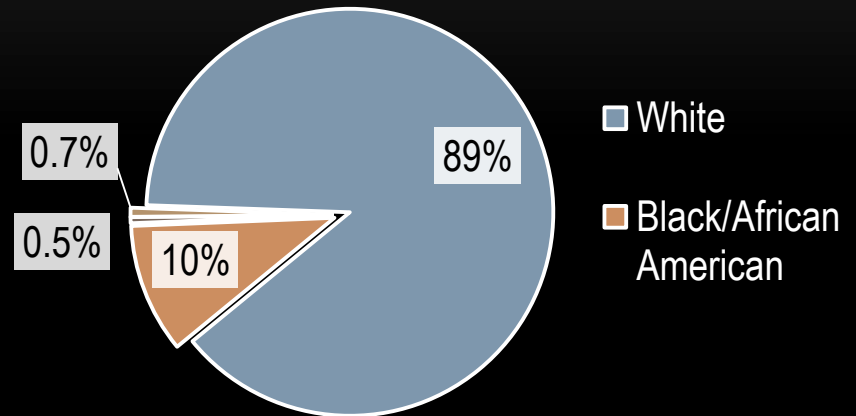


2008-2015 DEMOGRAPHICS

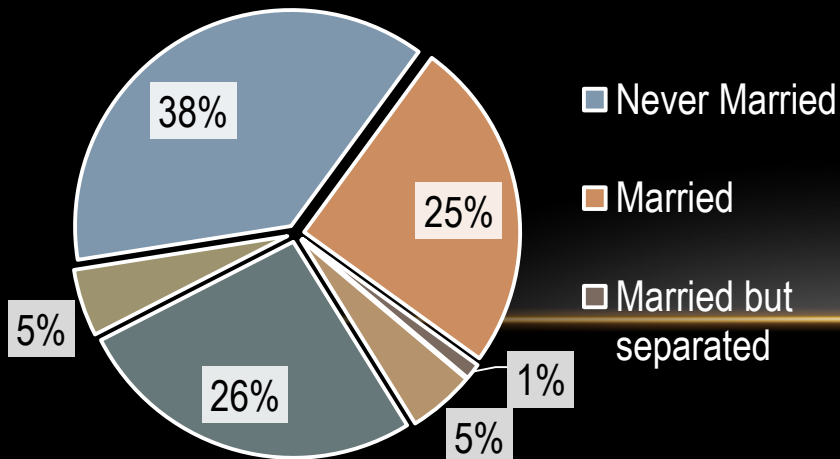
Gender



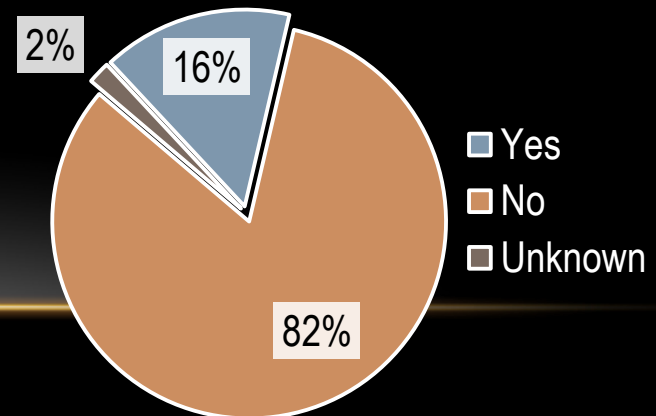
Race



Marital Status

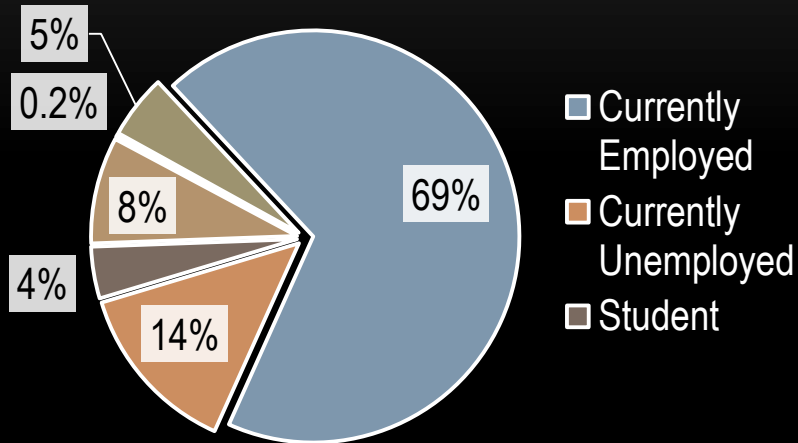


Armed Forces

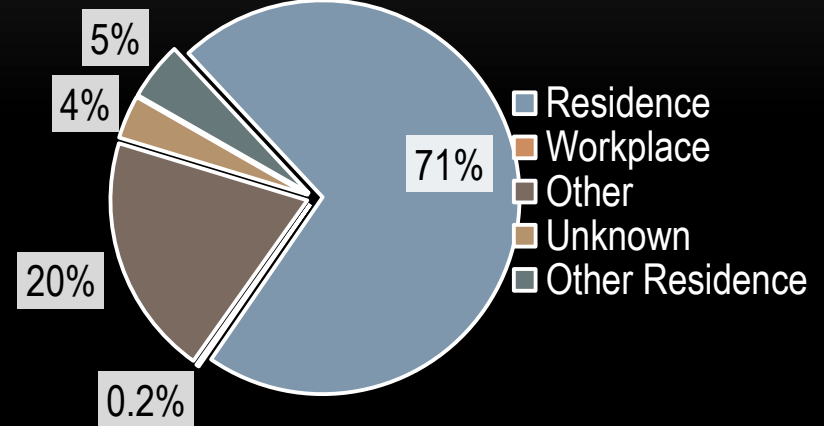


2008-2015 DEMOGRAPHICS

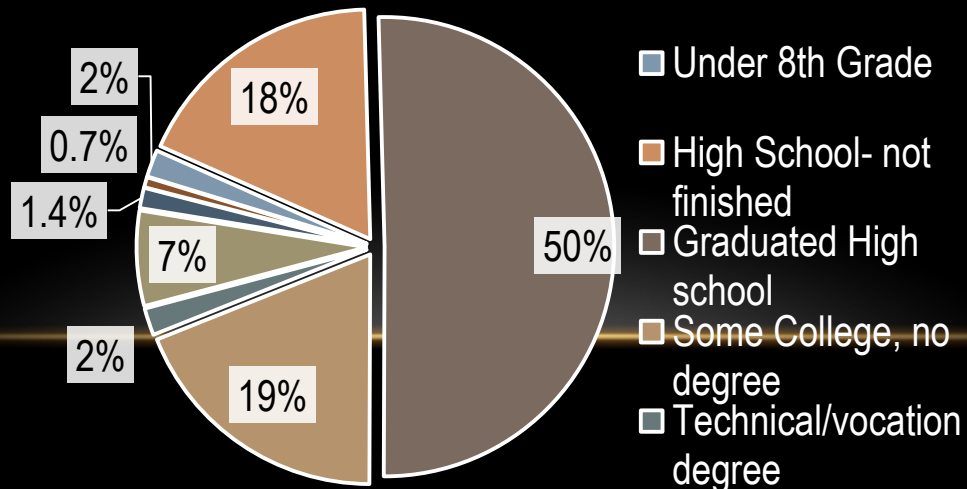
Employment Status



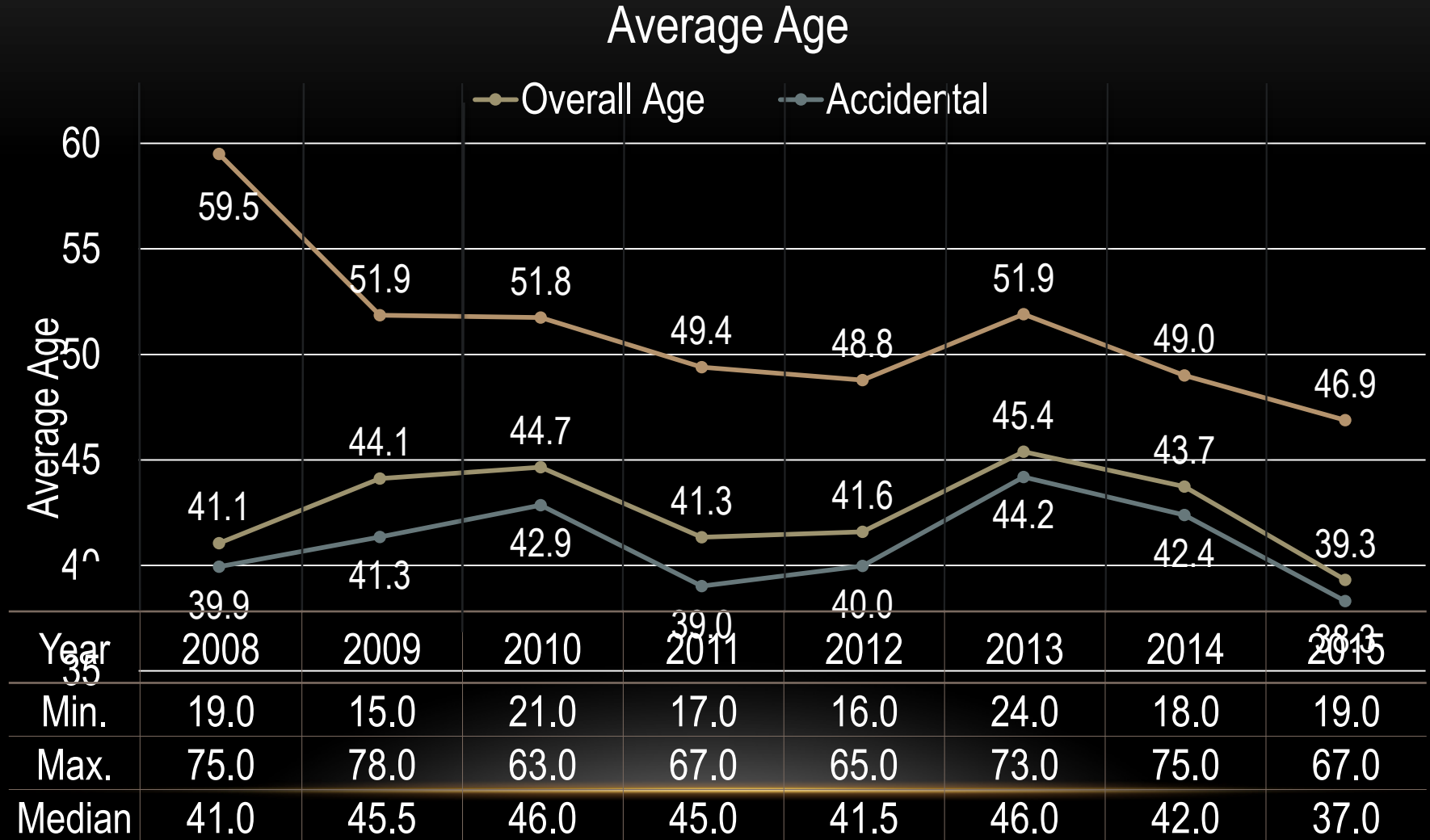
Place of Injury



Education Level

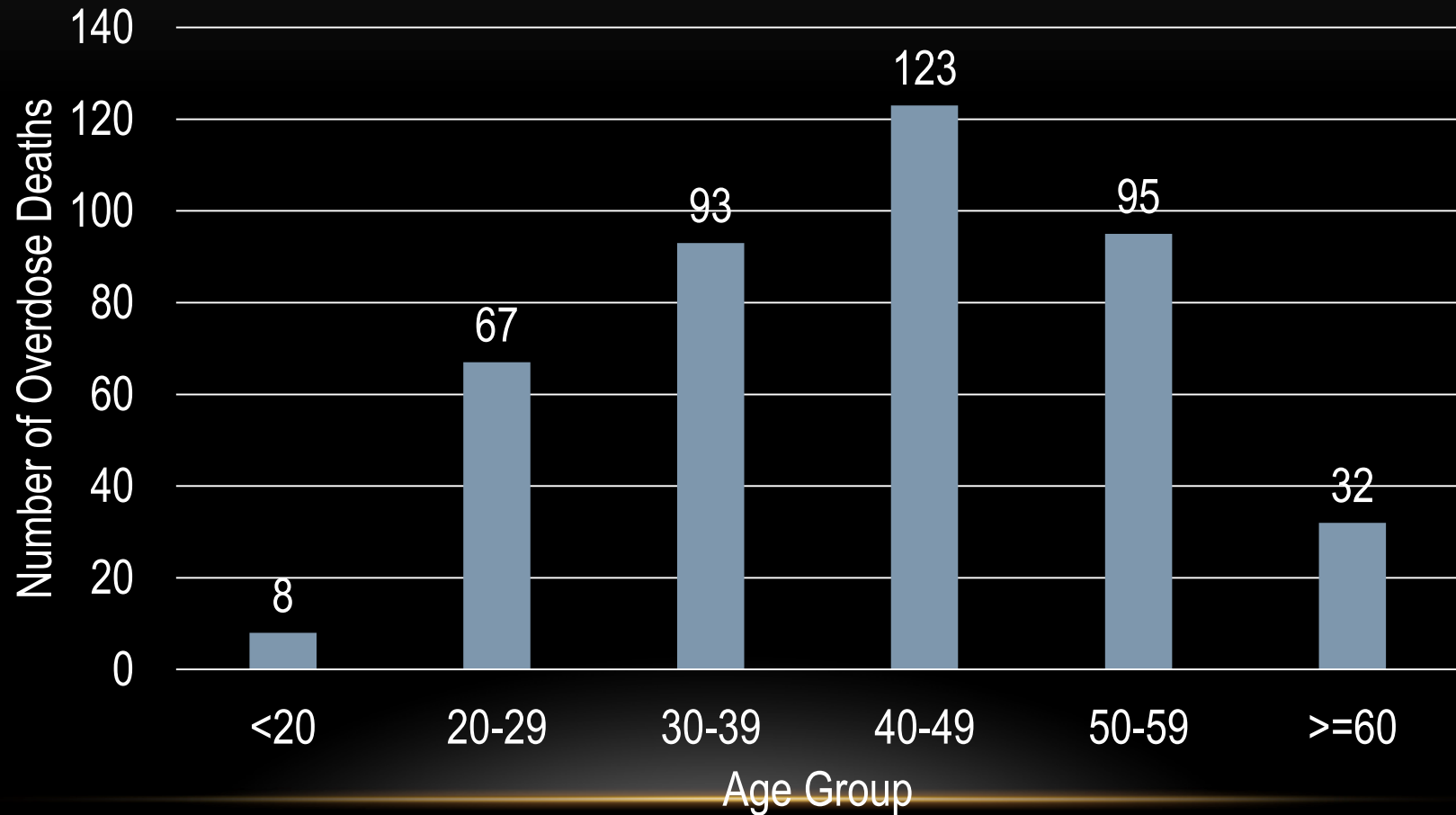


2008-2015 AVERAGE AGE

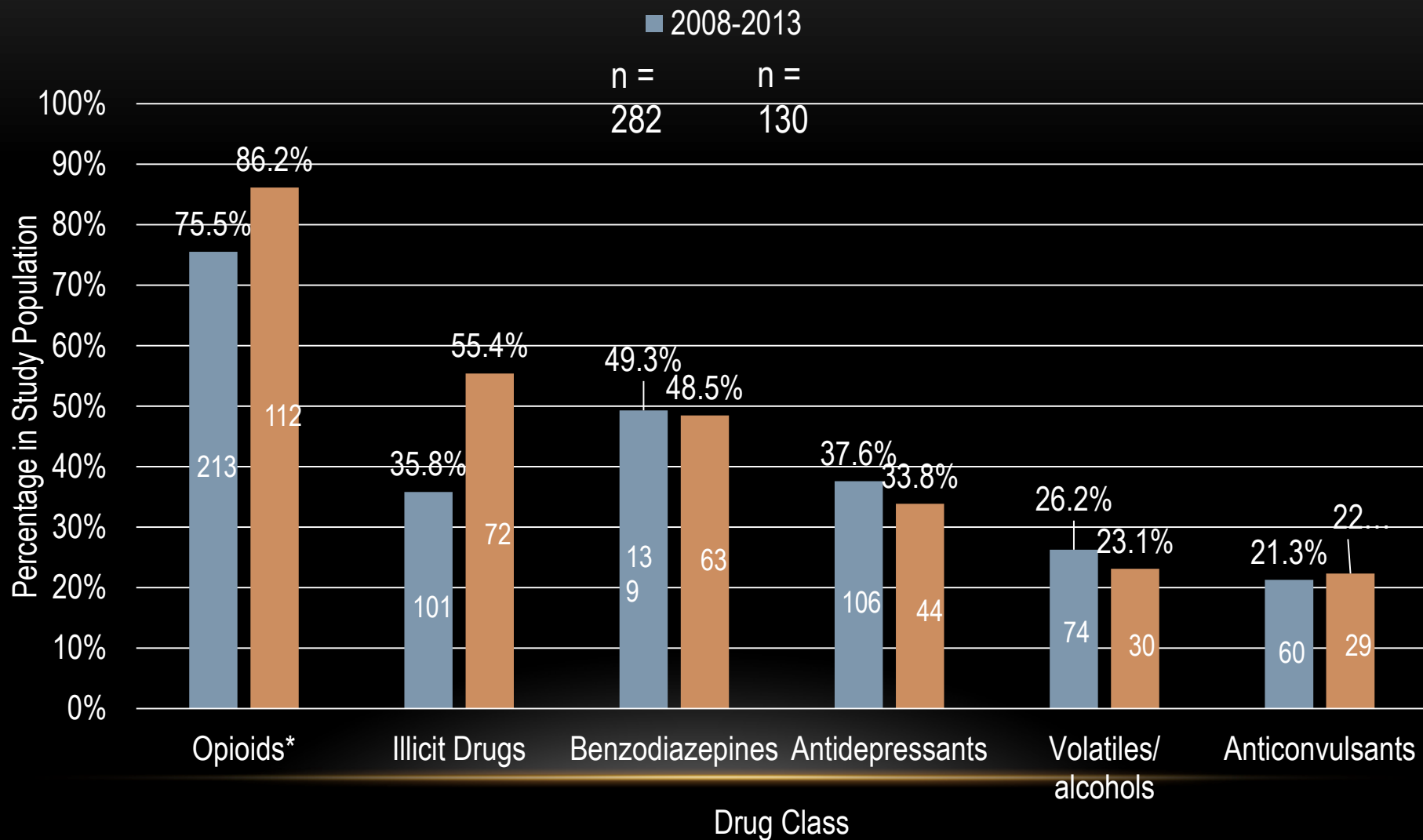


2008-2015 AGE BREAKDOWN

2008-2015 Age Breakdown



COMPARISON OF DRUG CLASSES

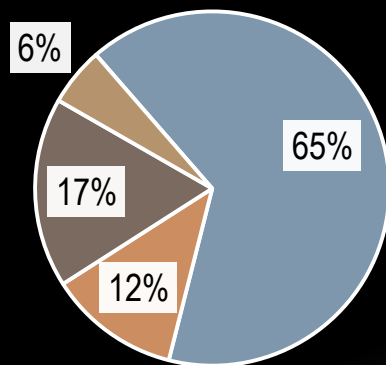


*Opioids include fentanyl, methadone, and weak opioids

2008-2015 UNDER 30 YEARS OLD

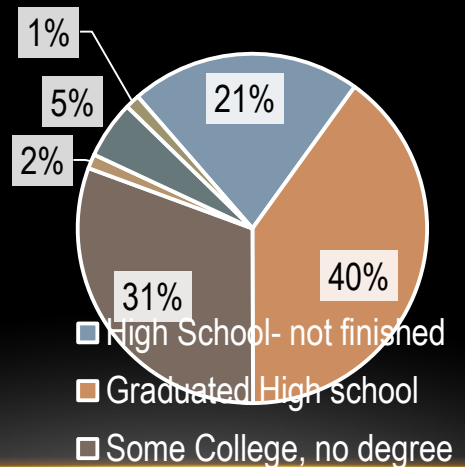
- 75 total overdose deaths
 - 5 intentional, 70 accidental
- Gender
 - 24 females
 - 51 males
- Medical Conditions
 - Hypertension (1), diabetes (1), asthma (2), thyroid disorder (1), sleep apnea (6), hepatitis C (2), depression (4), prior suicide attempts (4), and substance abuse (14)
- 72% had others present

Employment



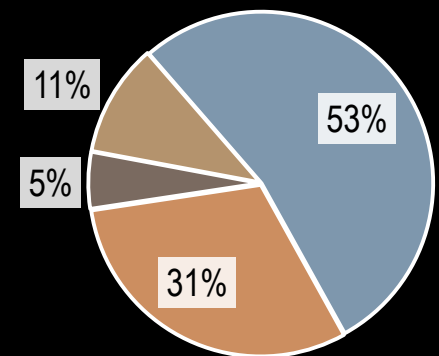
- Currently Employed
- Currently Unemployed

Education



- High School- not finished
- Graduated High School
- Some College, no degree
- Technical/vocation degree
- College Degree
- Unknown

Place of Injury



- Residence
- Other
- Unknown

PRESCRIPTION OPIATES TO HEROIN

- Heroin use has increased across the US among men and women, most age groups, and all income levels.
 - Most started with prescription opioids.
 - Some of the greatest increases occurred in demographic groups with historically low rates of heroin use: women, the privately insured, and people with higher incomes.
 - Sadly, people are also abusing multiple other substances, especially cocaine and prescription opioid painkillers.
-

Heroin use is part of a larger substance abuse problem.

Nearly all people who used heroin also used at least 1 other drug.

Most used at least **3** other drugs.

Heroin is a highly addictive opioid drug with a high risk of overdose and **death** for users.

People who are addicted to...



ALCOHOL

are

2x



MARIJUANA

are

3x



COCAINE

are

15x



Rx OPIOID PAINKILLERS

are

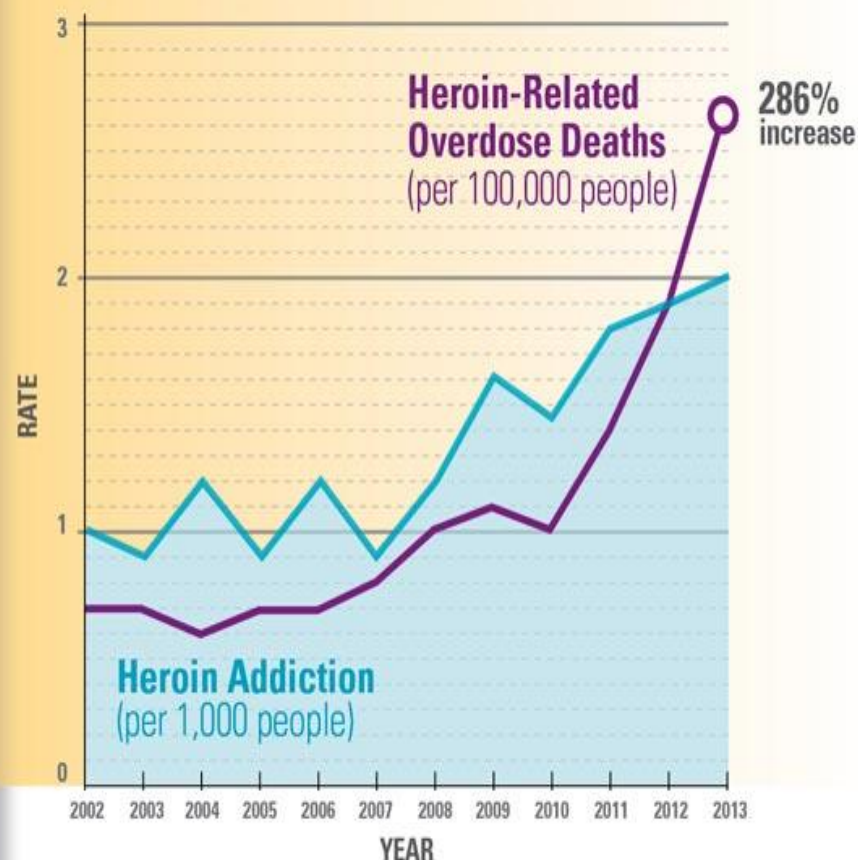
40x

...more likely to be addicted to heroin.

Heroin Use Has INCREASED Among Most Demographic Groups

	2002-2004*	2011-2013*	% CHANGE
SEX			
Male	2.4	3.6	50%
Female	0.8	1.6	100%
AGE, YEARS			
12-17	1.8	1.6	--
18-25	3.5	7.3	109%
26 or older	1.2	1.9	58%
RACE/ETHNICITY			
Non-Hispanic white	1.4	3	114%
Other	2	1.7	--
ANNUAL HOUSEHOLD INCOME			
Less than \$20,000	3.4	5.5	62%
\$20,000-\$49,999	1.3	2.3	77%
\$50,000 or more	1	1.6	60%
HEALTH INSURANCE COVERAGE			
None	4.2	6.7	60%
Medicaid	4.3	4.7	--
Private or other	0.8	1.3	63%

Heroin Addiction and Overdose Deaths are Climbing



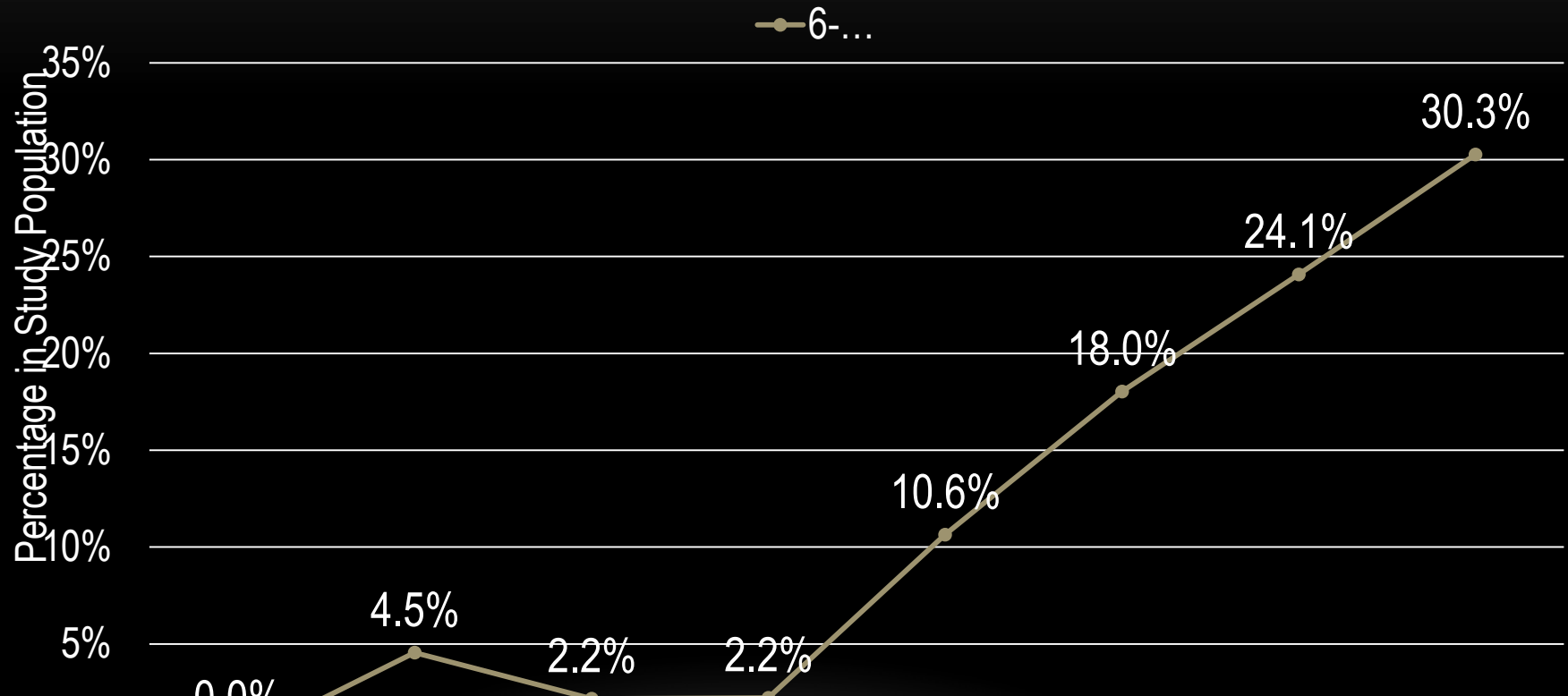
SOURCES: National Survey on Drug Use and Health (NSDUH), 2002-2013.
National Vital Statistics System, 2002-2013.

2008-2015 TABLE OF ILLICIT DRUGS

Year	2008	2009	2010	2011	2012	2013	2014	2015	Total
6-MAM	0	2	1	1	5	11	13	23	56
THC	8	8	10	6	6	16	11	25	90
Cocaine	10	7	9	5	7	11	10	19	78
Total Overdose Deaths	39	44	46	45	47	61	54	76	412

2008-2015 HEROIN (6-MAM)

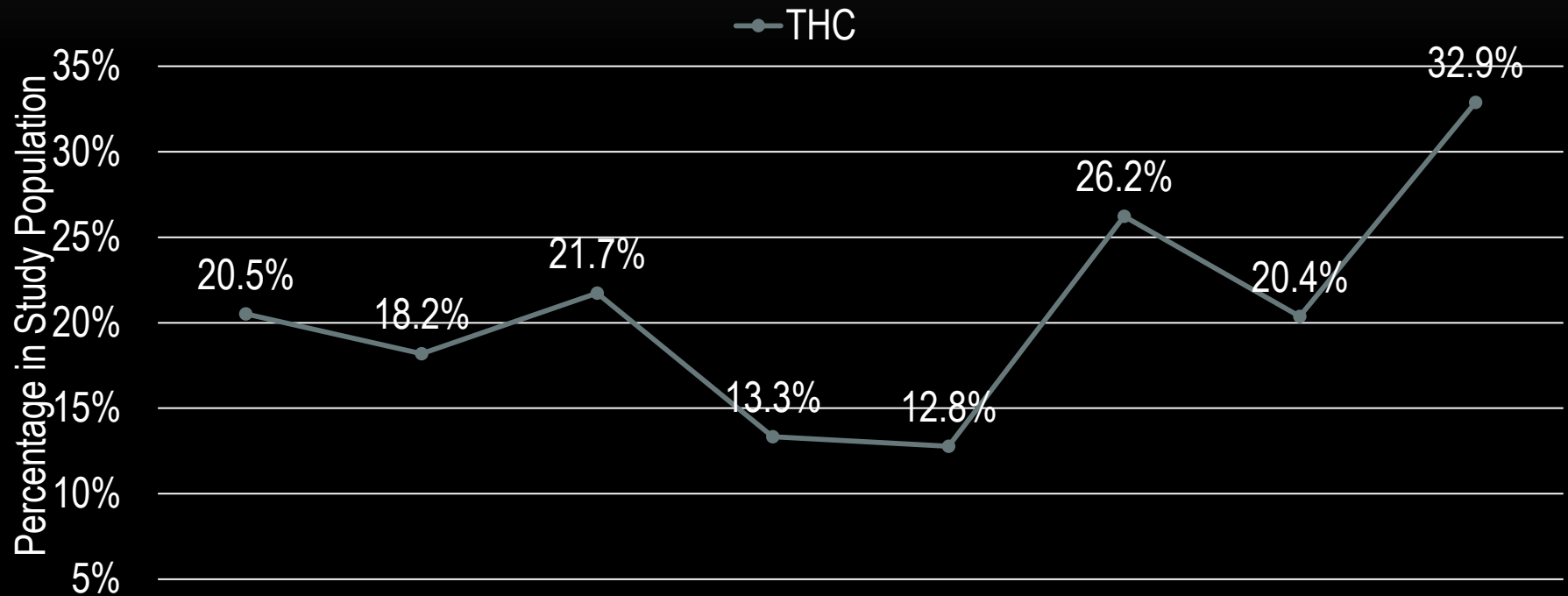
2008-2015 Illicit Drugs: 6-MAM



Year	2008	2009	2010	2011	2012	2013	2014	2015
6-MAM	39	44	46	45	47	61	54	76
# of overdoses	39	44	46	45	47	61	54	76

2008-2015 THC

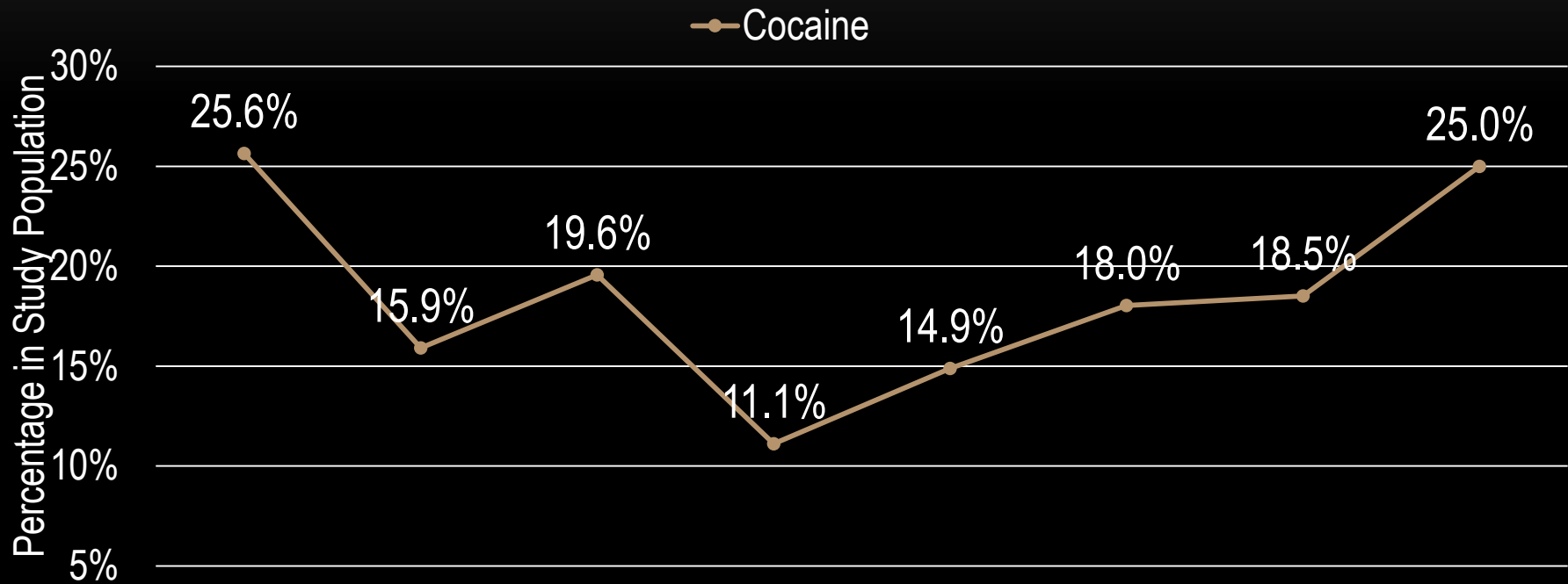
2008-2015 Illicit Drugs: THC



Year	2008	2009	2010	2011	2012	2013	2014	2015
Cocaine	39	44	46	45	47	61	54	76

2008-2015 COCAINE

2008-2015 Illicit Drugs: Cocaine



Year	2008	2009	2010	2011	2012	2013	2014	2015
Cocaine	10	7	9	5	7	11	10	19
	39	44	46	45	47	61	54	76

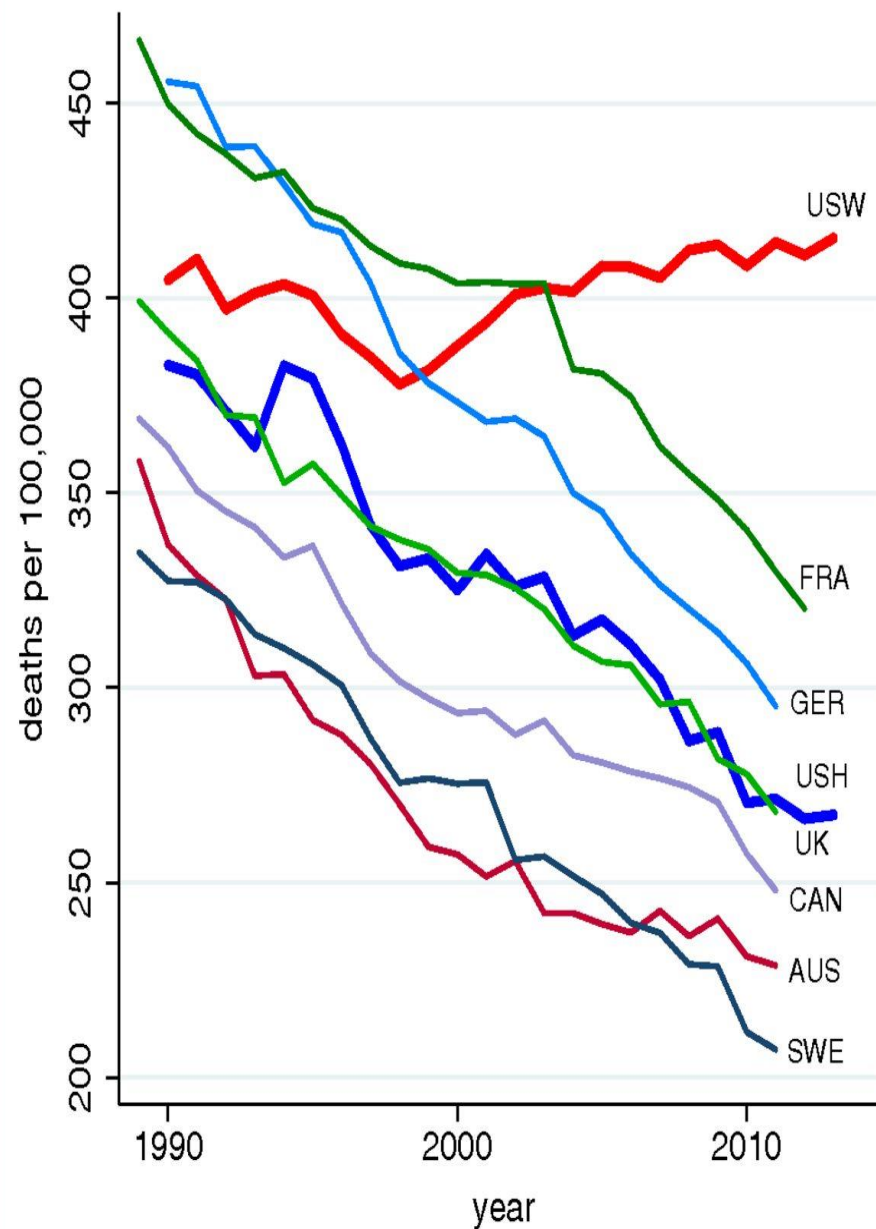
WHAT'S THE BIG DEAL?

- Public health interventions over the last century have contributed to the significant reductions in mortality and morbidity
- Sadly, a recent study revealed increasing mortality in middle-aged whites that is matched by increasing morbidity.
- Also revealed declines in self-reported health and mental health, increased reports of pain, and greater difficulties with daily living
- All demonstrating increasing distress among whites in midlife after the late 1990s.

MORTALITY RATES

- From 1978 to 1998, the mortality rate for US whites aged 45–54 **fell** by 2% per year on average, which matched the average rate of decline over all other industrialized countries.
- After 1998, other rich countries' mortality rates continued to decline by 2% a year.
- In contrast, US white non-Hispanic mortality rose by half a percent a year. No other rich country saw a similar turnaround.
- The mortality reversal was confined to white non-Hispanics;
 - Hispanic Americans had mortality declines indistinguishable from the British
 - Black non-Hispanic mortality for ages 45–54 declined by 2.6% per year over the period.

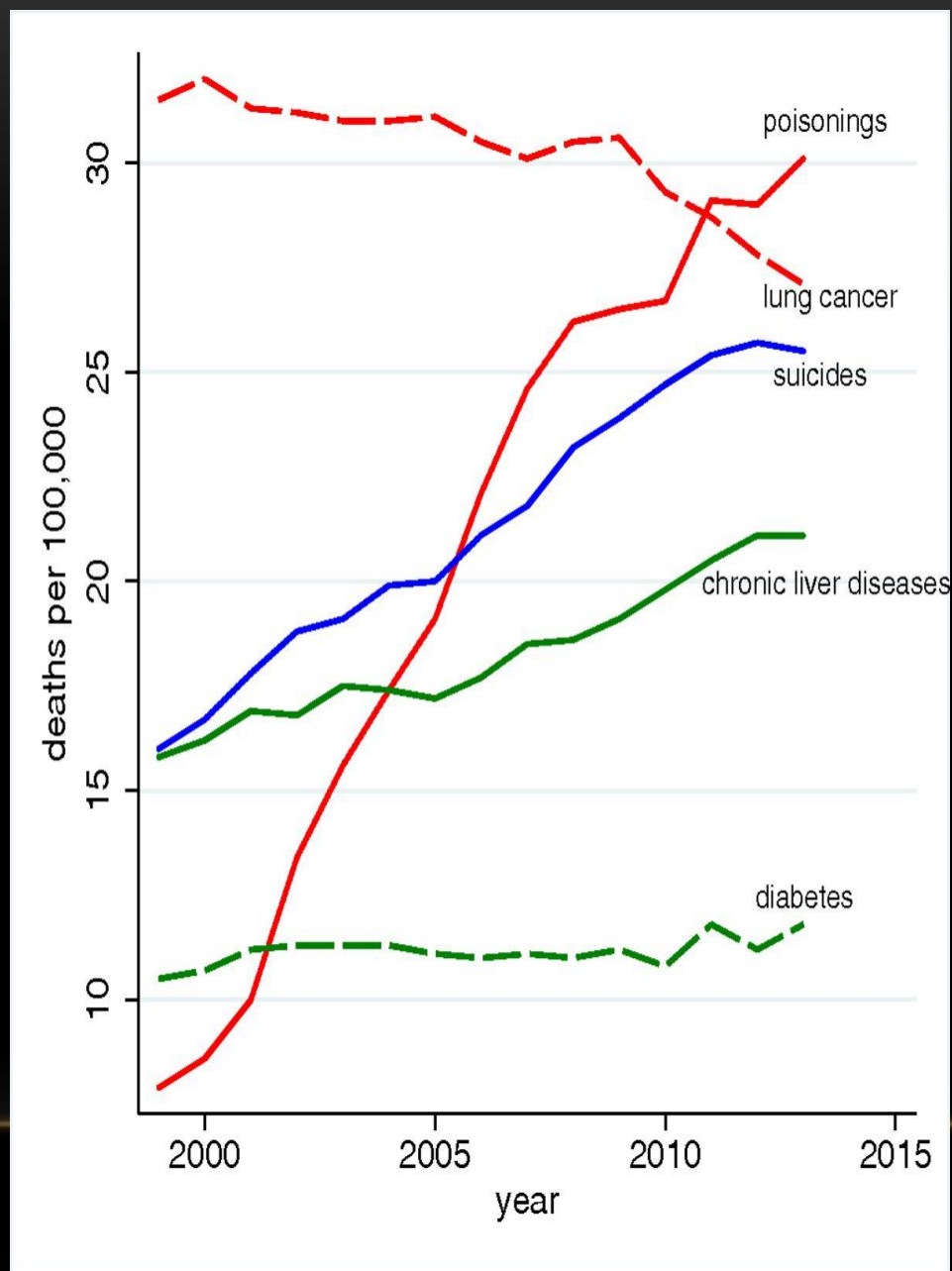
All-cause mortality, ages 45–54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE).



MORTALITY RATES

- The three causes of death that account for the mortality reversal among white non-Hispanics:
 - Suicide
 - Drug and alcohol poisoning (accidental and intent undetermined)
 - Chronic liver diseases and cirrhosis.
- All three increased year-on-year after 1998.

Mortality by cause, white non-Hispanics ages 45–54.

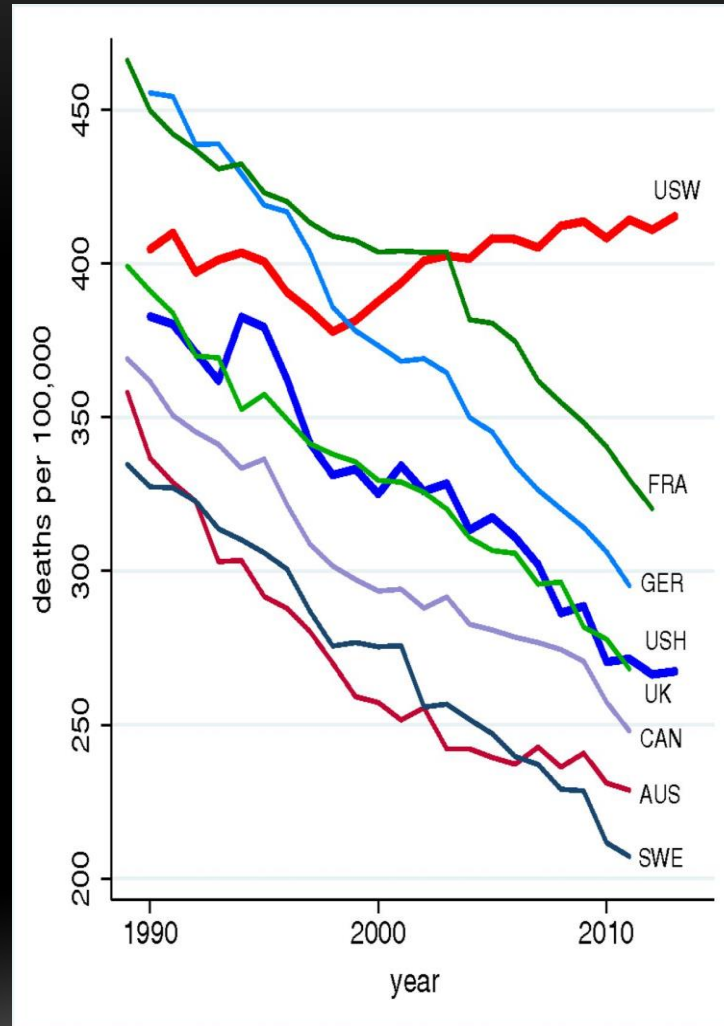


Anne Case, and Angus
Deaton PNAS
2015;112:15078-15083

MORTALITY RATES AND EDUCATION

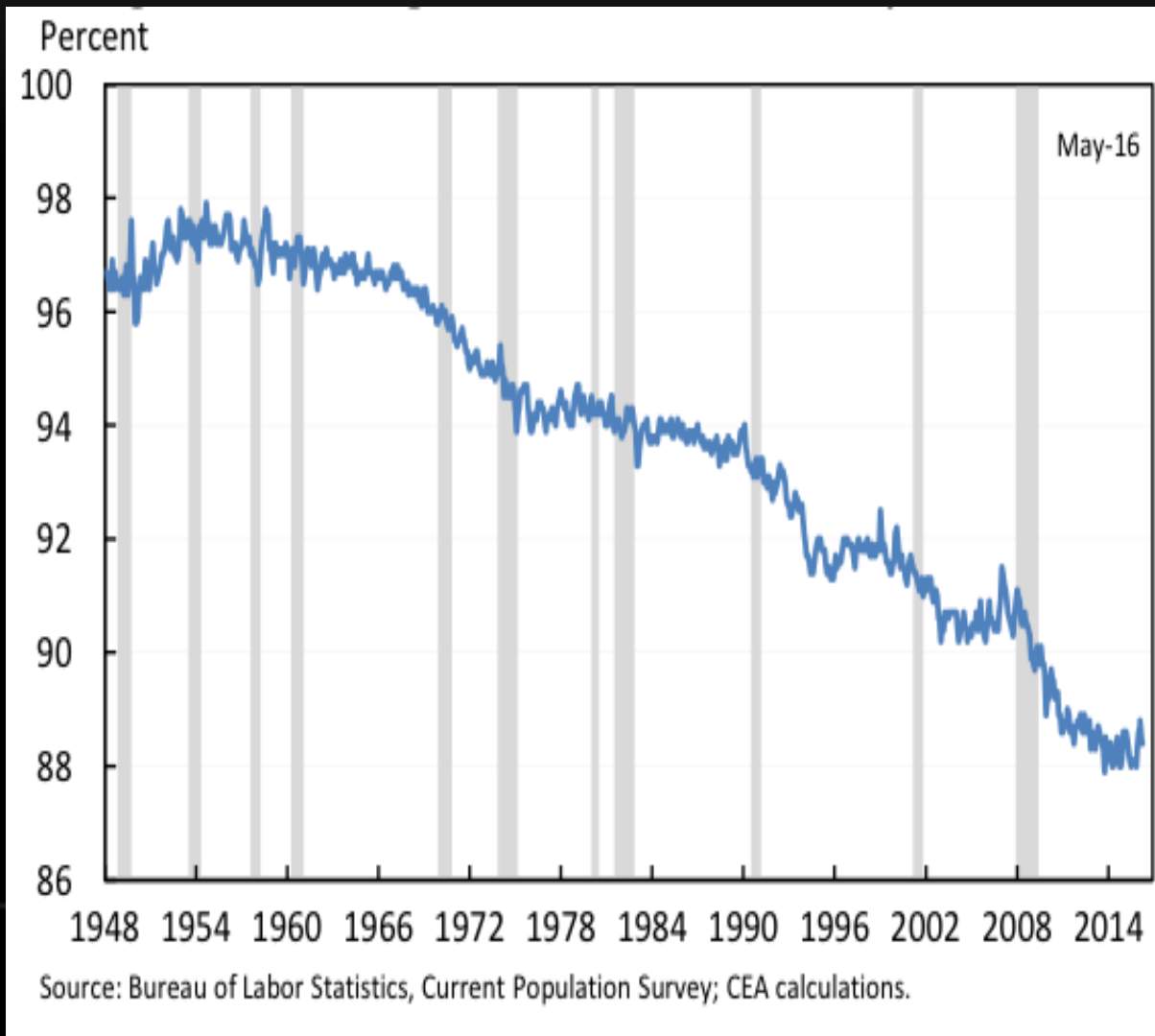
- All educational groups (High school or less, less than BA, BA or greater) saw increases in mortality from suicide and poisonings, and an overall increase in external cause mortality, but *increases were largest for those with the least education.*
- The mortality rate from poisonings rose more than fourfold for this group and mortality from chronic liver diseases and cirrhosis rose by 50%.

While midlife increases in suicides and drug poisonings have been previously noted that these upward trends were persistent and large enough to drive up all-cause midlife mortality *has been overlooked.*

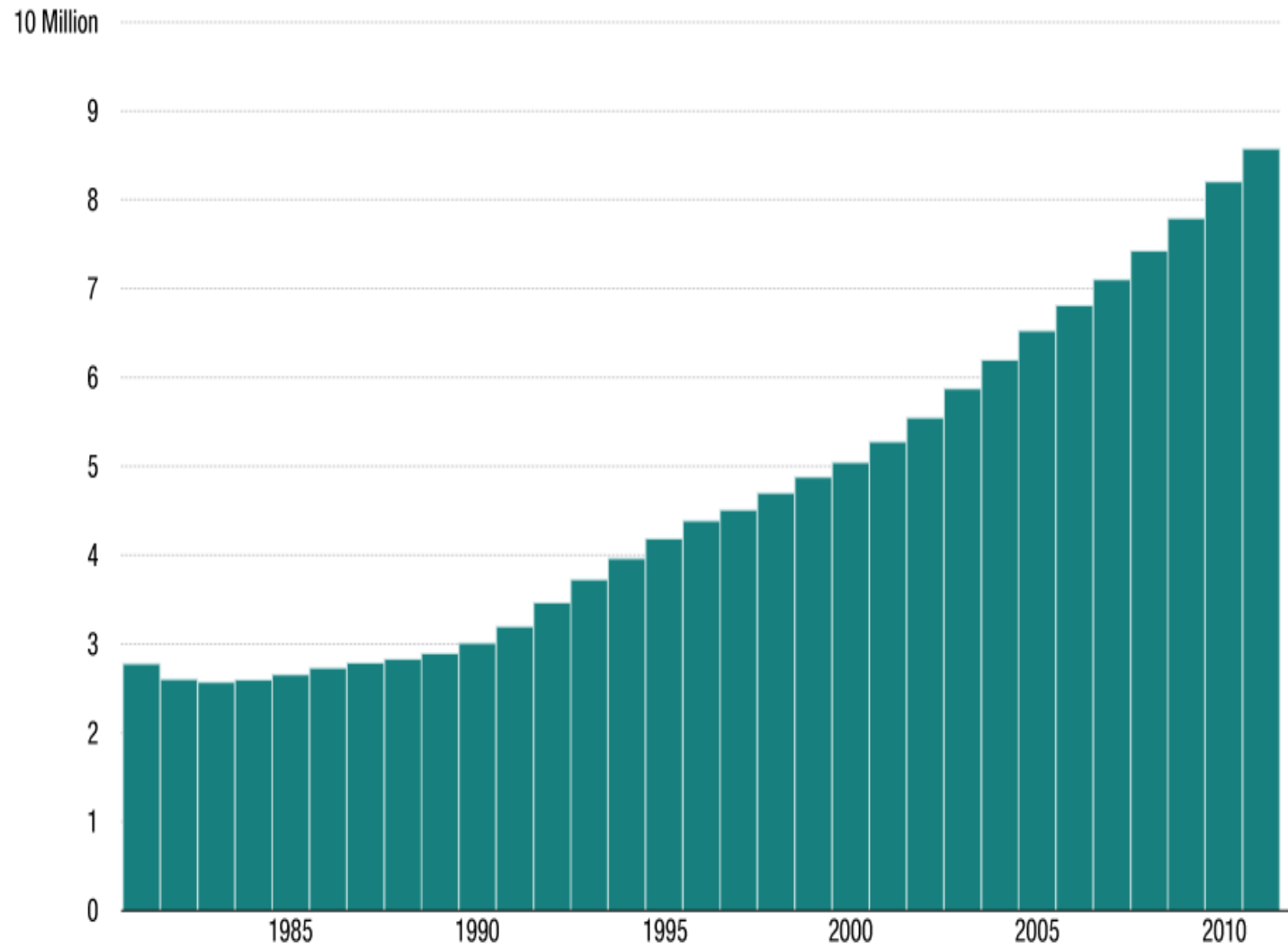


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MALE LABOR PARTICIPATION RATE



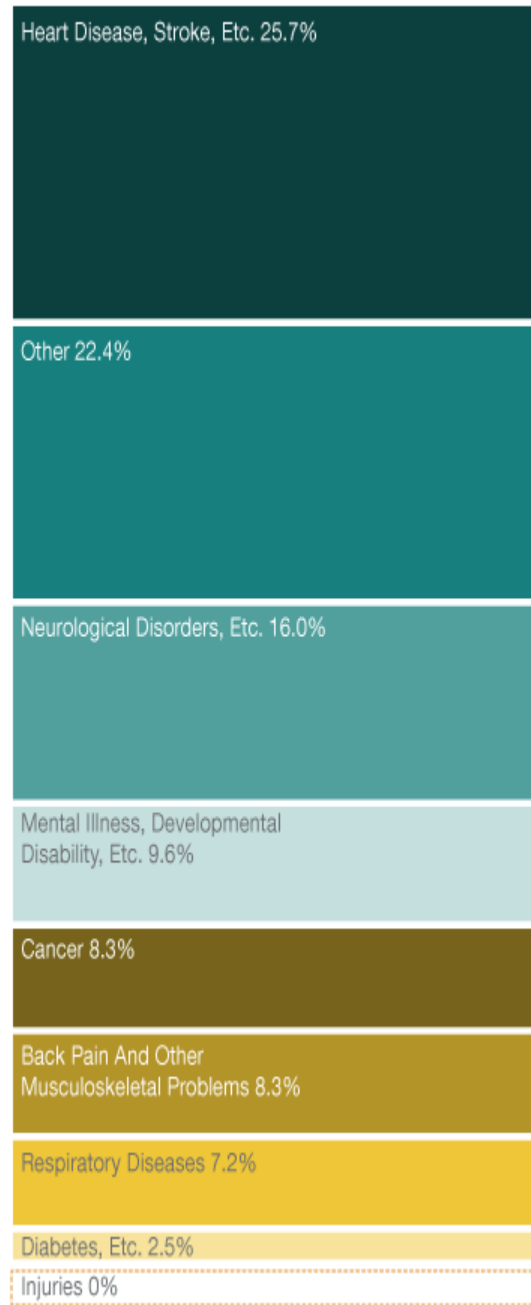
Number Of Former Workers On Disability



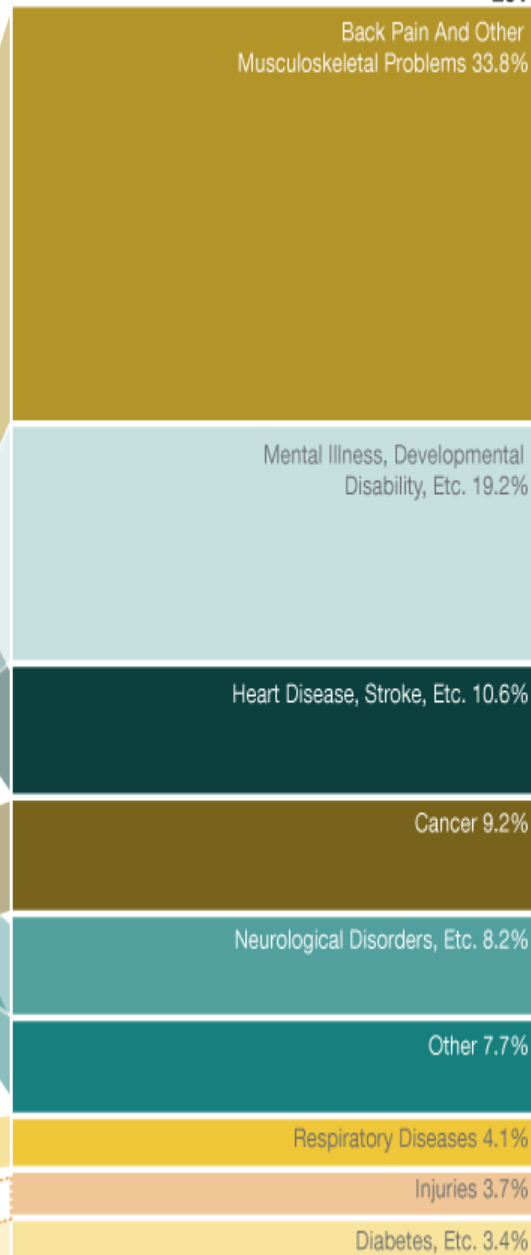
Source: Social Security Administration
Credit: Lam Thuy Vo / NPR

Share Of Newly Disabled Workers, By Diagnosis

1961



2011



Source: Social Security Administration
Credit: Lam Thuy Vo / NPR

WHAT DOES THE SCIENCE SAY?

THE ADDICTED BRAIN

- Drug addiction causes lasting changes in brain function that are difficult to reverse.
- Dopamine released by the nucleus accumbens is responsible for the good feelings or pleasure we have when we perform an action that satisfies a need or fulfills a desire.
- Through different mechanisms drugs set in motion a biological process that results in flooding the nucleus accumbens with dopamine (reward system).
- This causes a reduction in the natural capacity to produce dopamine in the reward system is reduced, but the need persists and the drug seems to be the only way to fulfill it.

THE ADDICTED BRAIN

Changes in the reward system alone cannot explain why addiction persists

- The hippocampus lays down memories of the rapid sense of satisfaction, and the amygdala creates a **conditioned response** to certain stimuli.
- These memories can be retrieved when they are exposed to any reminder of those circumstances — moods, situations, people, places, or the substance itself.
- A single small dose of the drug itself is one of the most powerful reminders

THE ADDICTED BRAIN AND STRESS

- Addicts are hypersensitive to stress, either congenitally or as a result of past addiction.
- Levels of corticotropin releasing hormone (CRH) often rise in addicts just before a relapse, while the amygdala becomes more active.

THE ADDICTED BRAIN – PREFRONTAL CORTEX

- The prefrontal cortex (CEO of brain) helps to determine the adaptive value of pleasure recorded by the nucleus accumbens and checks the urge to take the drug when it would be unwise.
- May not be fully functioning in addiction
- Because the prefrontal cortex is not fully developed in adolescence, teens may be more susceptible to developing addictions at that time of life.

THE ADDICTED BRAIN - GENETICS

- Twin and adoption studies show that about 50% of individual variation in susceptibility to addiction is hereditary.

THE ADDICTED BRAIN AND MENTAL ILLNESS

For those with depression, anxiety, schizophrenia, or personality disorders:

- Their reward system may be more vulnerable
- May have more intense responses to stress, or
- May form addictive habits quicker than others.

EVIDENCE BASED COMMUNITY WIDE SOLUTIONS

SCREENING FOR ALCOHOL AND DRUG USE

- Alcohol and other drug (AOD) problems are major causes of mortality and morbidity, and these problems often begin in adolescence.
 - Medical visits provide critical opportunities to identify such issues.
 - Contrary to PCP opinion, a recent national survey of teens and parents actually found high receptivity to screening and intervention by PCPs.
 - The study found that adolescents had more positive perceptions of care when their PCP discussed “sensitive” topics with them, including AOD use.
-

BARRIERS TO SCREENING

A web-based survey of provider attitudes regarding screening revealed the following:

- Limited AOD screening and treatment knowledge
- Low self-efficacy/high sensitivity about addressing AOD problems
 - Nineteen percent of the PCPs reported that it was “difficult” or “very difficult” to discuss alcohol abuse with their patients
 - 22% found it difficult to discuss drug use,
- Many PCPs felt unprepared to diagnose AOD problems:
 - 42% felt unprepared to diagnose alcohol problems
 - 37% felt unprepared to diagnose marijuana problems,
 - 56% felt unprepared to diagnose other illicit drug or prescription drug problems.

BARRIERS TO SCREENING

- Time constraints was the number one barrier (80%)
- Other reported barriers to screening were:
 - Feeling they did not have “sufficient information about referral options” (12%)
 - Fear that documentation of AOD use in medical record could adversely affect patients (9%).
 - Perceived adolescent confidentiality policies and regulations as a barrier to discussing AOD use and problems (32%)

Over 90% surveyed reported they did screen for drugs and alcohol but EMR review revealed about 65% actually documented they screened

SCREENING FOR DEPRESSION

- U.S. Preventive Services Task Force found that treatment with antidepressants, psychotherapy, or both decreases clinical morbidity and improves outcomes in adults with depression identified through screening in primary care settings.
- Screening adults for depression is recommended in clinical practices that have systems in place to ensure accurate diagnosis, effective treatment, and follow-up.
- There is no evidence of harms of screening for depression in adults.

SCREENING FOR DEPRESSION

- The USPSTF also recommends screening adolescents 12 to 18 years of age for depression in clinical practices that have systems (or referral systems) in place to ensure accurate diagnosis, psychotherapy (cognitive behavioral or interpersonal therapy), and follow-up.
- There is adequate evidence that treatment with selective serotonin reuptake inhibitors, psychotherapy, or both decreases depression symptoms in adolescents.

SCREENING FOR DEPRESSION - TOOLS

- The Patient Health Questionnaire (PHQ)-2 and PHQ-9 are commonly used and validated screening tools.
- The PHQ-2 has a 97 percent sensitivity and 67 percent specificity in adults
- The PHQ-9 has a 61 percent sensitivity and 94 percent specificity in adults.
- If the PHQ-2 is positive for depression, the PHQ-9 should be administered
- In older adults, the 15-item Geriatric Depression Scale is also an appropriate follow-up test.
- If these screening tests are positive for depression, further evaluation is needed

SCREENING FOR DEPRESSION

PHQ-2 Questionnaire for Major Depressive Disorder

During the past month:

- Have you often been bothered by feeling down, depressed, or hopeless?
 - Have you often been bothered by little interest or pleasure in doing things?
-

SCREENING FOR DEPRESSION

An affirmative answer to either question is a positive test result; a negative answer to both questions is a negative test result.

In patients with a positive screen result, the PHQ-9 or HAM-D instrument should be performed to confirm the diagnosis and assess severity. These scales can then be used prospectively to monitor response to therapy.

SCREENING FOR ANXIETY

- The seven-item Generalized Anxiety Disorder scale (GAD-7) is a validated diagnostic tool designed for use in the primary care setting.
- The GAD-7 and GAD-2 each have an excellent negative predictive value, but only one half of patients with a positive screen actually have generalized anxiety disorder or panic disorder.

SCREENING FOR ANXIETY

Over the last 2 weeks, how often have you been bothered by the following problems?

	Not at all	Several days	More than half the days	Nearly every day
Feeling nervous, 3 anxious, or on edge	0	1	2	
Not being able to stop 3 or control worrying	0	1	2	

Total score >3 suggests Anxiety Disorder or Panic Disorder

Table 1. Opioid Risk Tool

Item	Risk score*	
	Women	Men
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Prescription drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Prescription drugs	5	5
Ages 16 - 45	1	1
History of preadolescent substance abuse	3	0
Psychological disease		
Attention-deficit/hyperactivity disorder, obsessive-compulsive disorder, bipolar disorder, or schizophrenia	2	2
Depression	1	1

*Total score risk category: low risk, 0 - 3; moderate risk, 4 - 7; high risk, ≥ 8.

Adapted from Webster LR, Webster RM. *Pain Med.* 2005.¹²

Low Risk:

A score of 3 or lower

Moderate risk:

A score of 4 to 7

High risk:

A score of 8 or higher indicates a high risk

CAGE Questionnaire for Detecting Alcoholism

Question	Yes	No
C: Have you ever felt you should C ut down on your drinking?	1	0
A: Have people A nnoyed you by criticizing your drinking?	1	0
G: Have you ever felt G uilty about your drinking?	1	0
E: Have you ever had a drink first thing in the morning (E ye opener)?	1	0

A total score of 0 or 1 suggests low risk of problem drinking

A total score of 2 or 3 indicates high suspicion for alcoholism

A total score of 4 is virtually diagnostic for alcoholism

Screening for

- C Have you ever ridden in a *car* driven by someone (including yourself) who was “high” or had been using alcohol or drugs?
- R Do you ever use alcohol or drugs to *relax*, feel better about yourself, or fit in?
- A Do you ever use alcohol or drugs while you are by yourself, *alone*?
- F Do you ever *forget* things you did while using alcohol or drugs?
- F Do your family or *friends* ever tell you that you should cut down on your drinking or drug use?
- T Have you ever gotten into *trouble* while you were using alcohol or drugs?

To interpret the screening results, score (1) for each “Yes” response;

Low Risk
0-1

High Risk
2 or higher

TREATING SUBSTANCE ABUSE

- Because addiction is a chronic disease, people can't simply stop using drugs for a few days and be cured.
 - Most patients need long-term or repeated care to stop using completely and recover their lives.
-

PRINCIPLES OF EFFECTIVE TREATMENT

- Addiction is a complex but treatable disease that affects brain function and behavior.
- No single treatment is right for everyone.
- People need to have quick access to treatment.
- Effective treatment addresses all of the patient's needs, not just his or her drug use.

PRINCIPLES OF EFFECTIVE TREATMENT

- Staying in treatment long enough is critical.
- Counseling and other behavioral therapies are the most commonly used forms of treatment.
- Medications are often an important part of treatment, especially when combined with behavioral therapies.
- Treatment plans must be reviewed often and modified to fit the patient's changing needs.

PRINCIPLES OF EFFECTIVE TREATMENT

- Treatment should address other possible mental disorders.
- Medically assisted detoxification is only the first stage of treatment.
- Treatment doesn't need to be voluntary to be effective.
- Drug use during treatment must be monitored continuously.

PRINCIPLES OF EFFECTIVE TREATMENT

- Treatment programs should test patients for HIV/AIDS, hepatitis B and C, tuberculosis, and other infectious diseases as well as teach them about steps they can take to reduce their risk of these illnesses.

WHERE TO BEGIN

- Bringing folks together
 - Medical
 - Mental health
 - Public health
 - Law enforcement
 - Social services
- Identify gaps
 - Communication
 - MAT capacity
 - Providing MAT in jails
 - Sufficient housing

WHERE TO BEGIN

- Improve communication
 - Look up Indiana
- Educate providers
 - Seminar
 - CME
- Facilitate shared care of the patient
 - To be determined
- Increase public private partnerships
 - Clean Slate

CLEAN SLATE: A MODEL FOR MAT DELIVERY

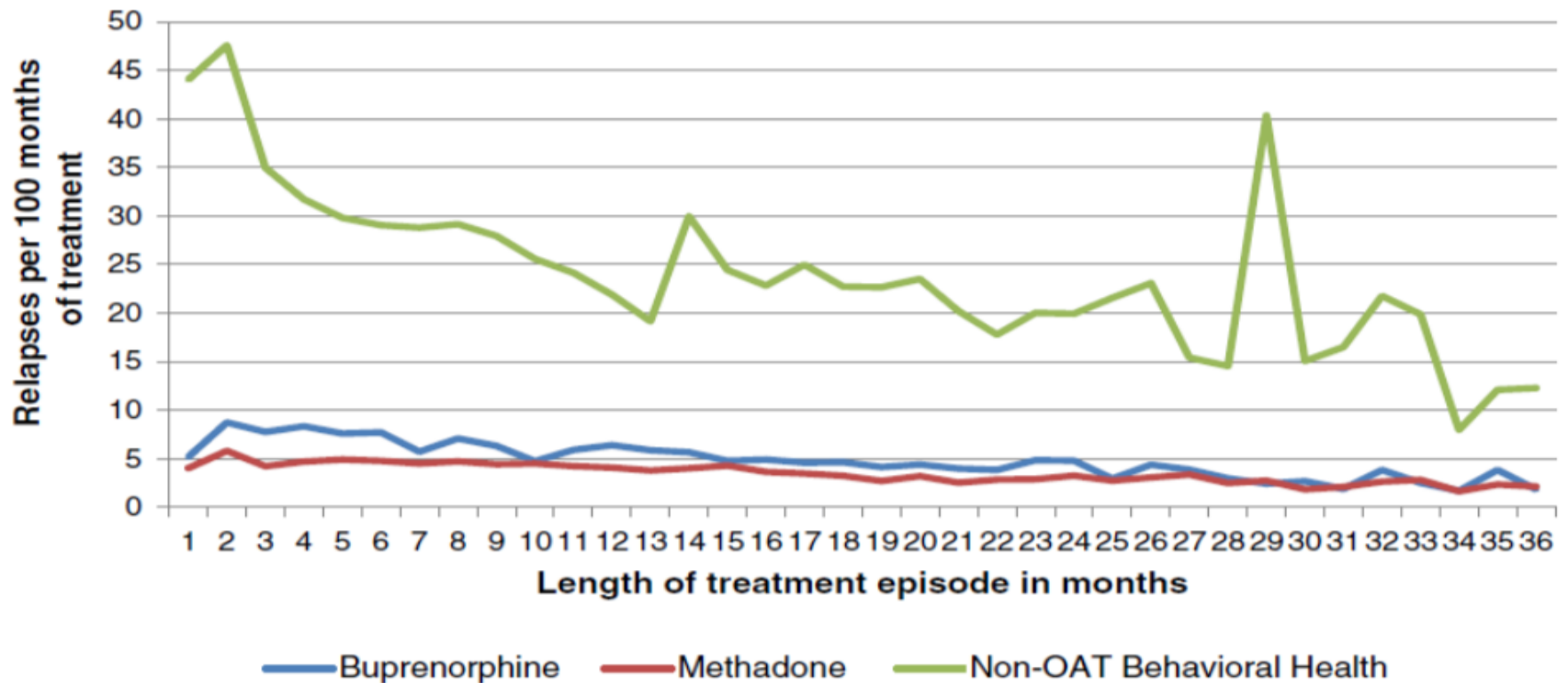
Joan Erwin

Senior VP – Expansion Operations

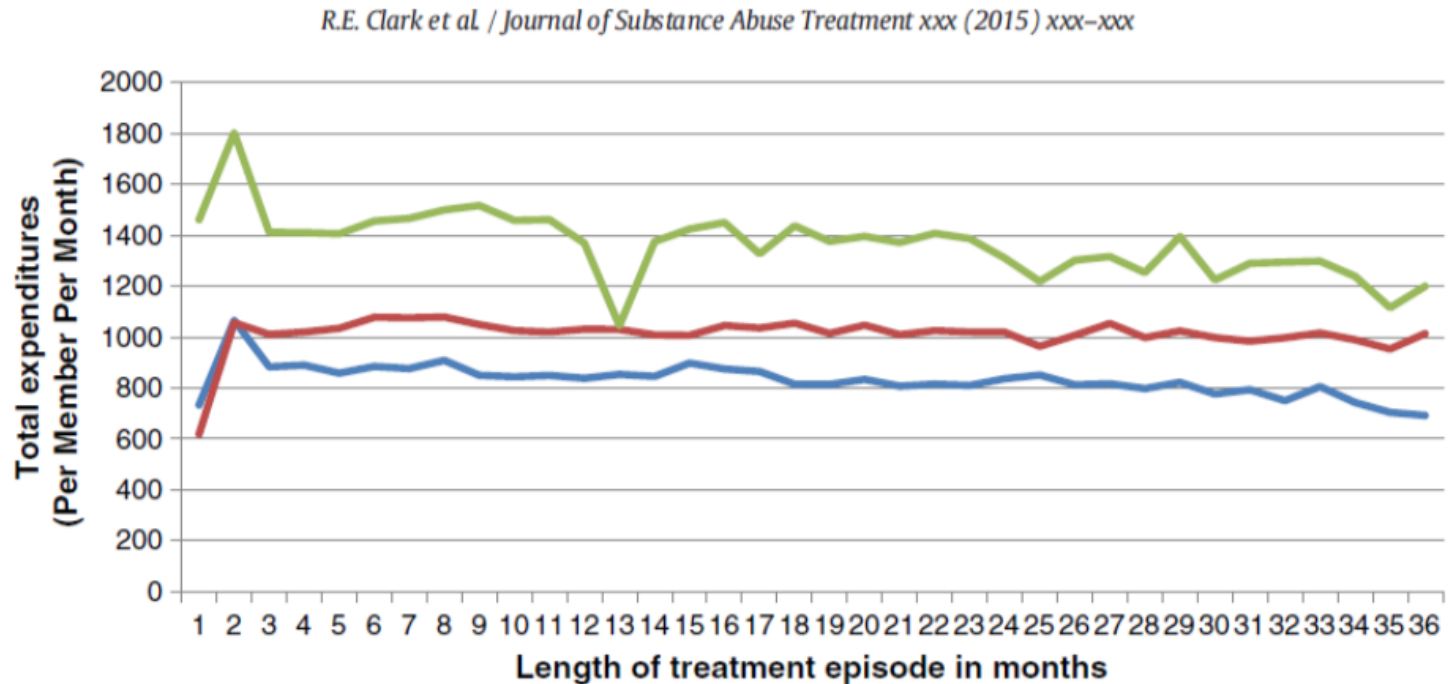
Clean Slate

WHAT ACTUALLY WORKS?

R.E. Clark et al. / Journal of Substance Abuse Treatment xxx (2015) xxx–xxx



WHAT ARE THE COSTS OF CARING FOR PATIENTS?



OAT = Opioid Agonist Treatment)

— Buprenorphine

— Methadone

— Non-OAT Behavioral Health

MEDICATION ASSISTED THERAPY (MAT): THE EVIDENCE IS CLEAR

- Medication used in the treatment of Opioid Use Disorder is the Gold Standard of care for Opioid addiction (doctor's offices use buprenorphine and Vivitrol):
 - Decrease risk of premature death
 - Decreased risk of HIV and Hepatitis C infection
 - Increased functionality (job, etc)
 - Decreased direct health care costs (medical and behavioral health)
 - Decrease criminal justice, child welfare, and employer costs

MEDICATION ASSISTED THERAPY (MAT): THE EVIDENCE IS CLEAR

- US Governmental agencies advocating increased access to MAT include National Institute of Drug Abuse (NIDA), Department of Health and Human Services (HHS), Centers for Disease Control (CDC), the Office of National Drug Control Policy (ONDCP)
- The National Governor's Association
- The American Medical Association (AMA), American Society of Addiction Medicine (ASAM), American Psychiatric Association (APA), American Academy of Addiction Psychiatry (AAAP) and American Osteopathic Association of Addiction Medicine (AOAAM)

EVIDENCE-BASED MEDICAL APPROACH

Addiction is a Chronic Brain Disease – brains change when bombarded with opioids

- Acute care models do not work well (detox/rehab)
- Care requires a biological, psychological and social dimension
- Care occurs in a variety of locations over time
- People cannot manage their medical conditions when in active addiction
- People cannot manage their lives (work, family) when in active addiction.

Prevention: The highest risk factors for initiating drug use include:

- Missing parent
- Family chaos
- Neglect or abuse
- Treating parental addiction is prevention of drug abuse in their children

OPIOID ADDICTION IS A CHRONIC BRAIN DISEASE

Physicians have learned
from treating chronic
heart disease and
diabetes

- Thorough bio-psychosocial assessment
- Active treatment planning
- Structured best practices
- MAT program needs to be consistent with ASAM Guidelines.
- Individualized, patient -centered care
- Care coordination
- Measured outcomes (quality, cost, experience of care)

WHAT ABOUT TREATMENT?

- Longitudinal process of change and personal transformation.
 - Historically, this is informed by 12-Step Abstinence-Based Recovery.
 - “Treatment Episodes” historically 28-30 day Residential Treatment with follow-up into AA/NA Meetings.
 - Frequent Relapse episodes.
 - 36 month participation in AA averages 13%.

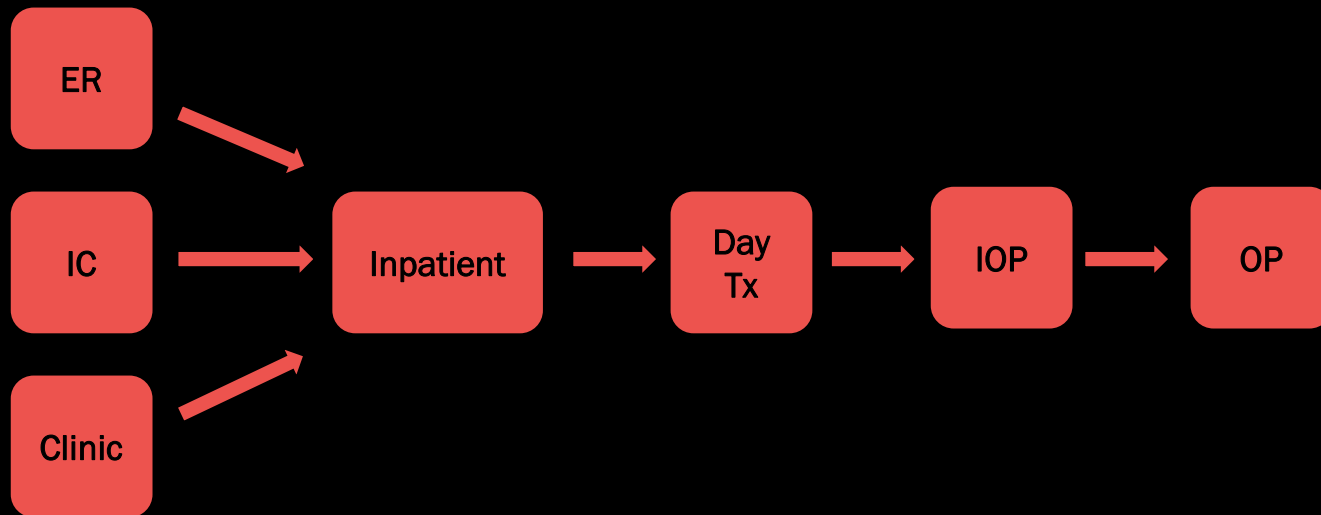
MEDICATION ASSISTED TREATMENT (MAT)

Components of MAT:

- » One-on-one therapy.
- » Group Treatment → Outpatient, Intensive Outpatient, Residential.
- » Psychiatric consultation.
- » Community Fellowship:
 - AA/NA/MA
 - OA/SAA
 - Women for Sobriety
 - SMART Recovery
- » Medication: For however long it is necessary to prevent a return to opioid use.
 - Agonist therapy for months to years.
 - Antagonist therapy for months to years.
 - Agonist followed by antagonist therapy.
- » Long-term data only exist with the methadone patient cohort.

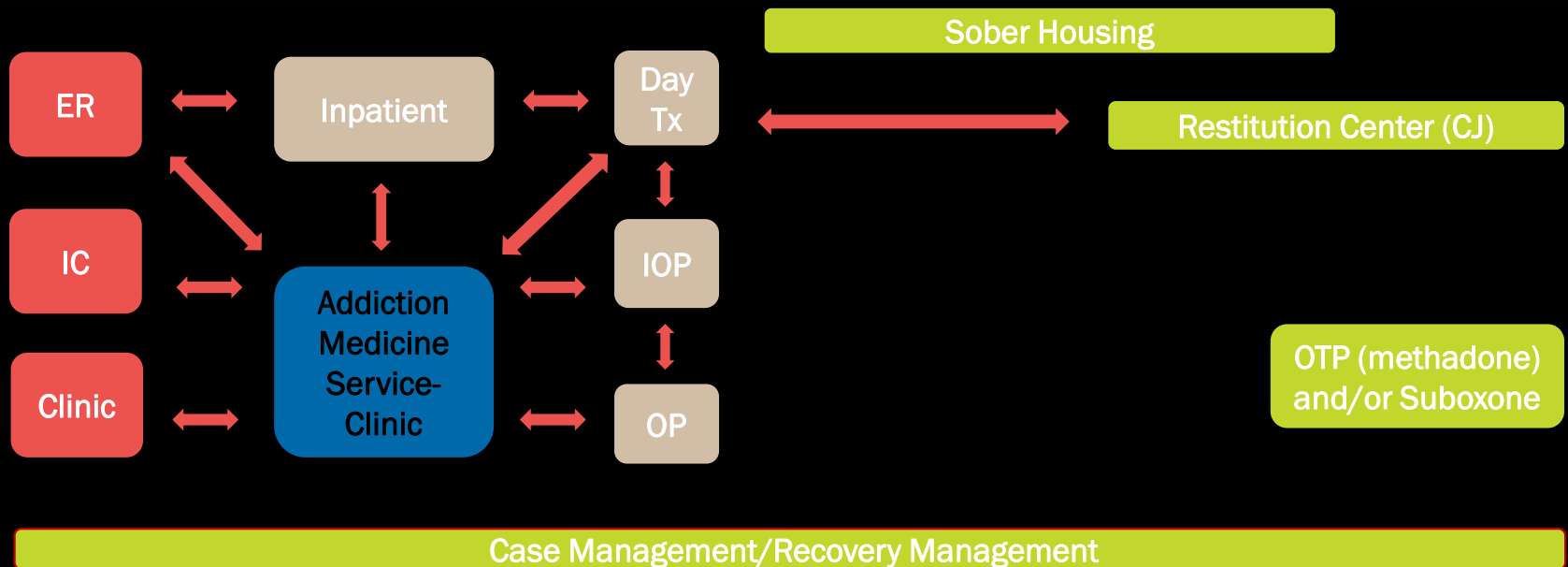
TRADITIONAL TREATMENT MODEL

A SYSTEMS BASED APPROACH TO CARE DELIVERY



FULLY INTEGRATED MEDICAL HOME FOR RECOVERY

A FULLY DEVELOPED SYSTEM: Accountable Care Organization



WHAT DOES AN APPROPRIATE MAINTENANCE PROGRAM LOOK LIKE?

DOCTOR

- Treatment “contract”/agreement
- Sees patients regularly
- Does not provide long prescriptions
- Incorporates psychosocial treatment
- Random urine drug testing
- Diversion measures (pill counts, lot numbers, used wrappers, etc.)

PATIENT

- » Abide by “contract”
- » Compliance w/medications (take SL, no selling/sharing, etc.)
- » No individual dose escalation w/o MD approval
- » Compliance w/visits (no early refills)
- » One doctor/one pharmacy (no “doctor shopping”)
- » Active participation in psychosocial treatment

INTEGRATED NETWORK OF TREATMENT AND RECOVERY

1. What does your community need?
 2. What does your community need you or your clinic to support?
 3. What are the barriers to change access to MAT treatment?
 4. Why do those barriers exist?
 5. What will you do to serve this population in a new way?
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SUMMARY

- Substance Abuse is a big problem
- Requires multidisciplinary approach
- New venues of communication
- New partnerships and collaborations

